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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,812	10/06/2003	Timothy F. Moore III	I-1-0062.7US	3393

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EXAMINER	
BAYARD, EMMANUEL	
ART UNIT	**PAPER NUMBER**
2638	

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/679,812	**Applicant(s)** MOORE, TIMOTHY F.	
	Examiner Emmanuel Bayard	**Art Unit** 2638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *50-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *50-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is in response to amendment filed on 6/02/05 in which claims 50-56 are pending. The applicant's arguments have been fully considered but they are moot based on the new ground of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 50 is rejected under 35 U.S.C. 102(b) as being anticipated by Groth et al U.S. Patent No 4,494,238.

As per claim 50, Groth et al teaches a transmitter for transmitting a spread spectrum code division multiple access (CDMA) signal at a system chip rate over a carrier frequency, comprising: a single-sideband modulator for shifting the signal spectrum to the edge of the spectrum bandwidth, including (see fig.8 element 104 and col.11, lines 9-13): a first phase shift network (fig.8 element 706) for converting the signal into I and Q components; a second phase shift network for producing a sinusoidal carrier signal and a cosinusoidal carrier signal (see fig.8 elements 722, 712 and col.10, line 67-col.11, lines 1-2); a pair of balanced modulators (see fig.8 elements 708, 718 and col.10, line 59 to col.11, lines 1-5) for receiving sinusoidal and cosinusoidal carrier signals from the second phase shifter; and an adder (see fig.8 element 724 and col.11, lines 4-19) for combining the balanced modulator outputs; and a reference signal input (see fig.8 element 69 and col.10, lines 53-56) with constant frequency for setting the shifting by said modulator.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 51-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groth U.S. Patent No 4,494,238 in view of Dent U.S. Patent No 5,351,016.

As per claim 51, Groth teaches all the features of the claimed invention including a low-pass filter (see fig.5 element 478i) having a cutoff frequency corresponding to the chip rate; a mixer (see fig.5 element 454i or 450i) for up-converting said spread spectrum data signal at the carrier frequency; and a band-pass filter (see fig.5 element 460i) with a bandwidth corresponding to twice the chip rate for filtering the signal prior to transmission.

However Groth does not teach a spread spectrum encoder for encoding the shifted signal into a spread signal.

Dent does teach a spread spectrum encoder for encoding the shifted signal into a spread signal (see fig.8 and col.18, lines 48-60).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Dent Into Groth as to produce codewords which are scramble by a modulo-2 addition in order to be transmited serially as taught by Dent (see col.18, lines 50-58).

As per claims 52 and 55, Groth et al·teaches a transmitter for transmitting a spread spectrum code division multiple access (CDMA) signal at a system chip rate over a carrier frequency, comprising: a single-sideband modulator for shifting the signal spectrum to the edge of the spectrum bandwidth, including (see fig.8 element 104 and col.11, lines 9-13): a first phase shift network (fig.8 element 706) for converting the signal into I and Q components; a second phase shift network for producing a sinusoidal carrier signal and a cosinusoidal carrier signal (see fig.8 elements 722, 712 and col.10, line 67-col.11, lines 1-2); a pair of balanced modulators (see fig.8 elements 708, 718 and col.10, line 59 to col.11, lines 1-5) for receiving sinusoidal and cosinusoidal carrier signals from the second phase shifter; and an adder (see fig.8 element 724 and col.11, lines 4-19) for combining the balanced modulator outputs; and a reference signal input (see fig.8 element 69 and col.10, lines 53-56) with constant frequency; a low-pass filter (see fig.5 element 478i) having a cutoff frequency corresponding to the reference input signal.

However Groth does not teach a spread spectrum encoder for encoding the shifted signal into a spread signal.

Dent does teach a spread spectrum encoder for encoding the shifted signal into a spread signal (see fig.8 and col.18, lines 48-60).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Dent Into Groth as to produce codewords which are scramble by a modulo-2 addition in order to be transmited serially as taught by Dent (see col.18, lines 50-58).

As per claims 53, and 56, Grothdoes teach a mixer for up-converting (see fig.5

element 454i or 450i) said spread spectrum data signal at the carrier frequency; and a band-pass filter (see fig.5 element 460i) with a bandwidth corresponding to twice the chip rate for filtering the signal prior to transmission is inherently taught by Dent.

As per claim 54, Groth teaches wherein the band-pass filter (see fig.5 element 460i). Furthermore implementing such filter to be a helical resonator would have been obvious to one skilled in the art as to accurately suppress the offset carrier frequency.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Counselman, III U.S Patent No 5,619,212 teaches a system for determining position.
Van Etten U.S. Patent No 4,490,829 teaches a detection of angular modulated signals.
Cooper U.S. Patent No 4,152,452 teaches a multichannel matrix.
Davis et al U.S. Patent No 5,373,265 teaches a modulator having an oscillator.
Olshansky U.S. Patent No 5,301,058 teaches a single sideband modulator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vanderpuye Kenneth can be reached on 571 272 3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard
Primary Examiner
Art Unit 2638

8/11/05

EMMANUEL BAYARD
PRIMARY EXAMINER